



Figure can vary

Part no.: 50138405
LPS 36.10
Line profile sensor



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Part no.: 50138405 – LPS 36.10 – Line profile sensor

Technical data

| Basic data | |
|---|---|
| Series | 36 |
| Contains | LxSsoft configuration software |
| Application | Contour measurement Object measurement |
| Special design | |
| Special design | Plastic screen |
| Optical data | |
| Light source | Laser , Red |
| Laser class | 2M |
| Measurement data | |
| X-axis measurement range | 150 ... 600 mm |
| Measurement range z-axis | 200 ... 800 mm |
| Resolution | X-axis: 1 ... 1,5 mm, relative to measurement distance Y-axis: 1 ... 3 mm, relative to measurement distance |
| Repeatability of Z-axis, relative to measurement distance | ≤ 0.5 % |
| Repeatability of Z-axis, relative to measurement distance, note | Reflectivity 90 %, identical object, identical environment conditions, measurement object ≤ 50x50 mm ² |
| Measurement time | 10ms |
| Linearity of Z-axis, relative to measurement distance | ± 1,0% |
| Black/white behavior | 1 % , 6 ... 90% diffuse reflectance |
| Electrical data | |
| Performance data | |
| Supply voltage U _B | 18 ... 30 V , DC |
| Inputs | |
| Number of activation inputs | 1 Piece(s) |
| Outputs | |
| Number of digital switching outputs | 2 Piece(s) |
| Switching outputs | |
| Switching output 1 | |
| Switching element | Transistor , Push-pull |
| Function | Operational readiness |
| Switching output 2 | |
| Switching element | Transistor , Push-pull |
| Function | Cascading |
| Interface | |
| Type | Ethernet |
| Connection | |
| Number of connections | 3 Piece(s) |

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Connection 1

| | |
|--------------------|---|
| Type of connection | Connector |
| Function | Signal IN Signal OUT Voltage supply |
| Thread size | M12 |
| Type | Male |
| Material | Metal |
| No. of pins | 8 -pin |
| Encoding | A-coded |

Connection 2

| | |
|--------------------|---|
| Type of connection | Connector |
| Function | Configuration interface Data interface |
| Thread size | M12 |
| Type | Female |
| Material | Metal |
| No. of pins | 4 -pin |
| Encoding | D-coded |

Connection 3

| | |
|--------------------|-----------|
| Type of connection | Connector |
| Function | Encoder |
| Thread size | M12 |
| Type | Female |
| Material | Metal |
| No. of pins | 8 -pin |
| Encoding | A-coded |

Connection 4

| | |
|--------------------|-----------------------|
| Type of connection | Connector |
| Function | Not used (dummy plug) |
| Thread size | M12 |
| Type | Female |
| Material | Metal |
| No. of pins | 4 -pin |
| Encoding | D-coded |

Mechanical data

| | |
|-----------------------|-----------------------------|
| Dimension (W x H x L) | 56 mm x 160 mm x 74 mm |
| Housing material | Metal Plastic , Aluminum |
| Lens cover material | Plastic |
| Net weight | 620 g |

Environmental data

| | |
|--------------------------------|---------------|
| Ambient temperature, operation | -30 ... 50 °C |
| Ambient temperature, storage | -30 ... 70 °C |

Certifications

| | |
|----------------------|-----------|
| Degree of protection | IP 67 |
| Protection class | III , VDE |
| Certifications | c UL US |

Standards applied

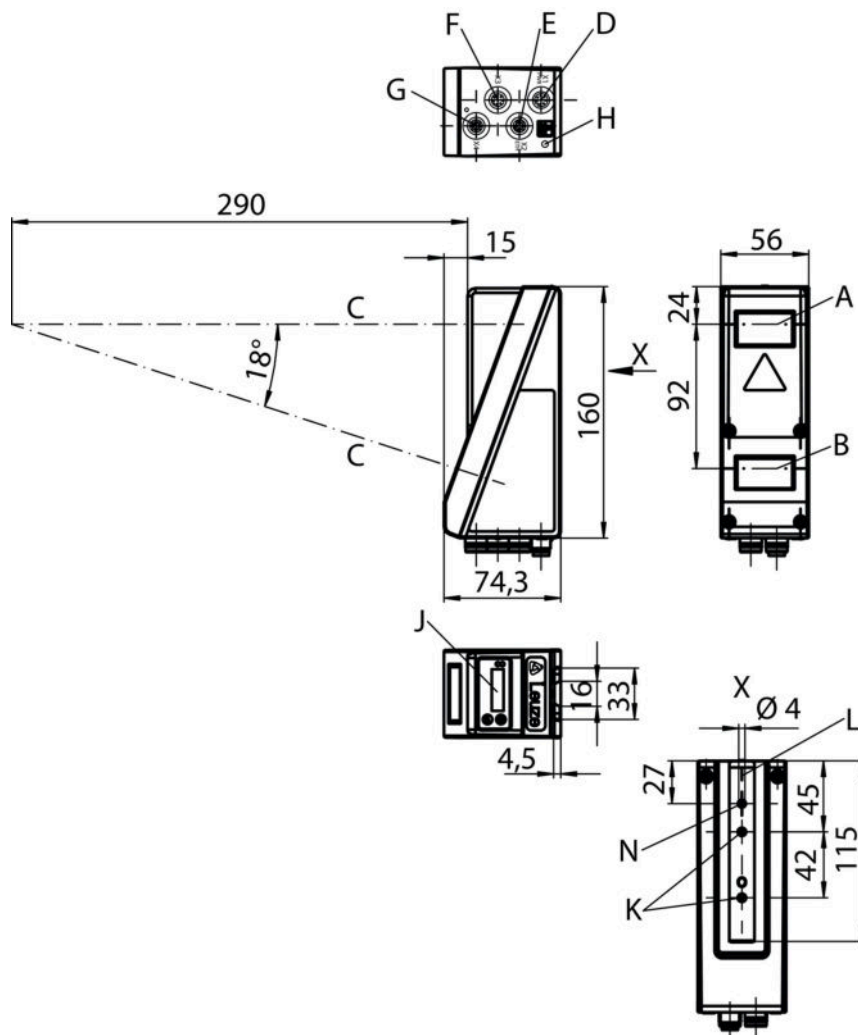
IEC 60947-5-2

Classification

| | |
|-----------------------|----------|
| Customs tariff number | 90318020 |
| eCl@ss 8.0 | 27280190 |
| eCl@ss 9.0 | 27280190 |
| ETIM 5.0 | EC001825 |
| ETIM 6.0 | EC001825 |

Dimensioned drawings

All dimensions in millimeters

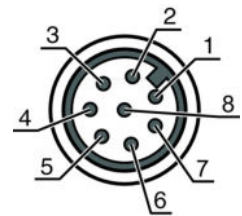


- A Transmitter
- B Receiver
- C Optical axis
- D, E, F, G X1-X4 connections
- H FE screw
- J OLED display and membrane keyboard
- K M4 thread (4.5 deep)
- L Support for mounting system

Electrical connection

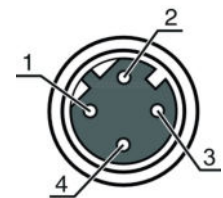
| Connection 1 | X1 PWR |
|--------------------|---|
| Type of connection | Connector |
| Function | Signal IN Signal OUT Voltage supply |
| Thread size | M12 |
| Type | Male |
| Material | Metal |
| No. of pins | 8 -pin |
| Encoding | A-coded |

| Pin | Pin assignment | Conductor color |
|-----|-------------------------------|-----------------|
| 1 | V+ | White |
| 2 | IN ACTIVATE | Brown |
| 3 | GND | Green |
| 4 | OUT 1 / Operational readiness | Yellow |
| 5 | Trigger IN | Gray |
| 6 | OUT 2 | Pink |
| 7 | n.c. | Blue |
| 8 | n.c. | Red |



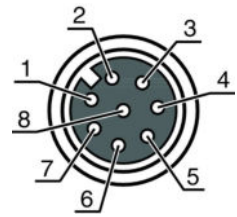
| Connection 2 | X2 ETH |
|--------------------|---|
| Type of connection | Connector |
| Function | Configuration interface Data interface |
| Thread size | M12 |
| Type | Female |
| Material | Metal |
| No. of pins | 4 -pin |
| Encoding | D-coded |

| Pin | Pin assignment | Conductor color |
|-----|----------------|-----------------|
| 1 | Tx+ | Yellow |
| 2 | Rx+ | White |
| 3 | Tx- | Orange |
| 4 | Rx- | Blue |



| Connection 3 | X3 encoder |
|--------------------|------------|
| Type of connection | Connector |
| Function | Encoder |
| Thread size | M12 |
| Type | Female |
| Material | Metal |
| No. of pins | 8 -pin |
| Encoding | A-coded |

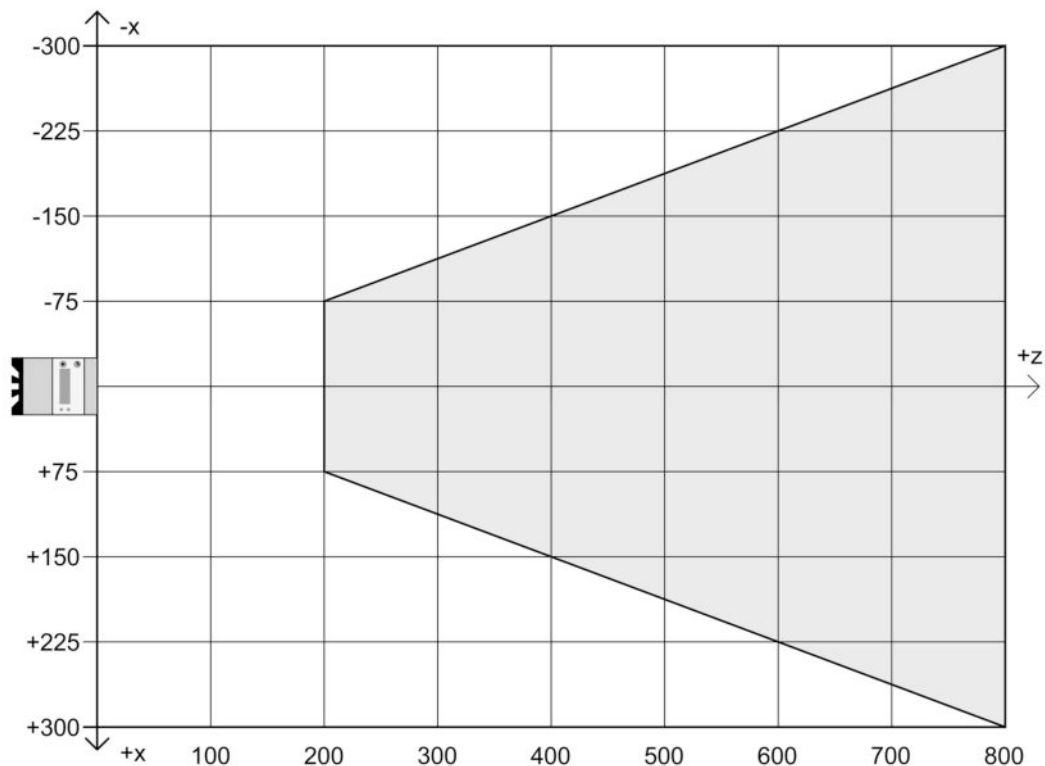
| Pin | Pin assignment | Conductor color |
|-----|----------------|-----------------|
| 1 | V+ | White |
| 2 | GND | Brown |
| 3 | GND | Green |
| 4 | Enc. A+ | Yellow |
| 5 | Enc. A- | Gray |
| 6 | Enc. B+ | Pink |
| 7 | Enc. B- | Blue |
| 8 | +5 V DC | Red |



| Connection 4 | |
|--------------------|-----------------------|
| Type of connection | Connector |
| Function | Not used (dummy plug) |
| Thread size | M12 |
| Type | Female |
| Material | Metal |
| No. of pins | 4 -pin |
| Encoding | D-coded |

Diagrams

Measurement range



x Line length in mm
z Object distance

Operation and display

LEDs

| LED | Display | Meaning |
|-----|--------------------------|------------------------------------|
| 1 | Green, continuous light | Operational readiness |
| | Off | No supply voltage |
| 2 | Yellow, continuous light | Ethernet connection is established |
| | Yellow, flashing | Data transmission active |
| | Off | No data transmission |

Notes

Observe intended use!

- This product is not a safety sensor and is not intended as personnel protection.
- The product may only be put into operation by competent persons.
- Only use the product in accordance with its intended use.

NOTE


Never look directly into the beam or point the beam in the direction of telescope users!

The device satisfies the requirements of IEC 60825-1:2007 (EN 60825-1:2007) safety regulations for a product of **laser class 2M** as well as the U.S. 21 CFR 1040.10 regulations with deviations corresponding to "Laser Notice No. 50" from June 24, 2007.

- For UL applications, use is only permitted in Class 2 circuits in accordance with the NEC (National Electric Code).
- Do not point the laser beam of the device at persons!
- Interrupt the laser beam using a non-transparent, non-reflective object if the laser beam is accidentally directed towards a person.
- When mounting and aligning the device, avoid reflections of the laser beam off reflective surfaces!
- CAUTION! The use of operating and adjusting devices other than those specified here or the carrying out of differing procedures may lead to dangerous exposure to radiation! The use of optical instruments or devices (e.g., magnifying glasses, binoculars) in combination with the device increases the danger of eye damage.
- Observe the applicable statutory and local laser protection regulations.
- The device must not be tampered with and must not be changed in any way.
There are no user-serviceable parts inside the device.
Repairs must only be performed by Leuze electronic GmbH + Co. KG.


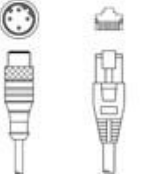
Accessories

Connection technology - Connection cables


| | Part no. | Designation | Article | Description |
|---|----------|--------------------|------------------|--|
|  | 50135128 | KD S-M12-8A-P1-050 | Connection cable | Connection 1: Connector, M12, Axial, Female, A-coded, 8 -pin Connection 2: Open end Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR |

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Connection technology - Interconnection cables

| | Part no. | Designation | Article | Description |
|---|----------|------------------------------------|--------------------------|---|
|  | 50125541 | K-DS M12A-8P-0,75m- LxS36-CP | Configuration cable | Parameter memory: Yes Connection 1: Connector, M12, Axial, Female, A-coded, 8 -pin Connection 2: Connector, M12, Axial, Male, A-coded, 8 -pin Shielded: Yes Cable length: 750 mm Sheathing material: PUR |
|  | 50135081 | KSS ET-M12-4A- RJ45-A-P7-050 | Interconnection cable | Suitable for interface: Ethernet Connection 1: Connector, M12, Axial, Male, D-coded, 4 -pin Connection 2: RJ45 Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR |

Mounting technology - Rod mounts

| | Part no. | Designation | Article | Description |
|---|----------|-------------|-----------------|---|
|  | 50121435 | BT 56 - 1 | Mounting device | Functions: Static applications Design of mounting device: Mounting system Fastening, at system: For 12 mm rod, For 14 mm rod, For 16 mm rod Mounting bracket, at device: Clampable Material: Metal Tightening torque of the clamping jaws: 8 N·m |

Services

| | Part no. | Designation | Article | Description |
|---|----------|-------------|------------------|---|
|  | S981001 | CS10-S-110 | Start-up support | Details: Performed at location of customer's choosing, duration: max. 10 hours. Conditions: Devices and connection cables are already mounted, price not including travel costs and, if applicable, accommodation expenses. Restrictions: No mechanical (mounting) and electrical (wiring) work performed, no changes (attachments, wiring, programming) to third-party components in the nearby environment. |
|  | S981005 | CS10-T-110 | Product training | Details: Location and content to be agreed upon, duration: max. 10 hours. Conditions: Price not including travel costs and, if applicable, accommodation expenses. Restrictions: Travel costs and accommodation expenses charged separately and according to expenditure. |

Note

A list with all available accessories can be found on the Leuze electronic website in the Download tab of the article detailed page.